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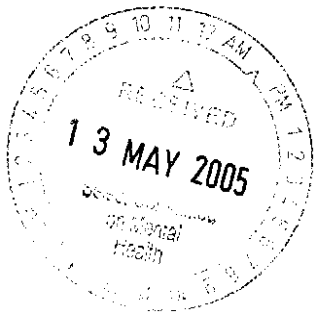

Senator Allison
The Chair
Senate Select Committee on Mental Health
Parliament House
Canberra 2600

Dear Senator Allison

I am writing on behalf of Mental Illness Education ACT a community organisation concerned with decreasing stigma towards people experiencing mental illness and increasing literacy about mental health. Volunteers who have a personal experience of living with mental illness facilitate sessions with the ACT community.

Over the last twelve years we have provided this service, with no funding initially, to being funded on an ongoing basis by ACT Government. During this time we have provided valuable education to 35 high schools and colleges, 60 community organisations and have reached over 30,000 people.

Please find attached a copy of a recently published article in the *International Journal of Mental Health Promotion* which outlines our successful work in de-stigmatising mental illness and increasing mental health literacy with secondary school students.

Our concerns are about the funding. We believe that enduring funding for our program and payment of our volunteers are imperative to the sustainability of such initiatives. Over the last few years organisations like Rotary and Beyond Blue have received significant funding. We suggest that grassroots organisations like ours who have been proven to be effective also receive significant amounts of funding.

Sincerely

Margy Wylde-Browne
Executive Officer
11 May 2005

Mental Illness Education ACT is funded by ACT Health

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Educating Young People about Mental Health and Mental Illness: Evaluating a School-Based Programme

Key words: stigma; mental health; literacy; help-seeking; schools; youth; evaluation

Introduction

The need to build the evidence base on the effectiveness of interventions designed to promote mental health and prevent mental illness among young people is acknowledged (Health, 2000a; Sawyer *et al*, 2000). This need is particularly acute for school-based interventions, as schools are settings where interventions are often adopted with little evidence of their effectiveness and no evaluation procedure in place (Raphael, 2000). To redress this, the Department of Health in the Australian Capital Territory (ACT) has made funding of all health promotion programmes contingent on evaluation reports, and provides some monetary support to undertake them. Consequently, the Mental Illness Education programme in the ACT (MIE-ACT) commissioned an independent, objective evaluation of its school-based mental health promotion programme.

The MIE-ACT programme is delivered by people who have personally experienced mental illness, either by having a mental illness themselves or by having cared for someone with a mental illness. The presenters are volunteers who are screened and trained to provide a standardised presentation, augmented by their personal stories. They receive ongoing training and support in their presentation role.

The format of the programme is that, in pairs, the presenters take high school class groups through a single-session structured programme that takes between 50 and 90 minutes. The presentations are standard in format and comprise information and interactive activities to make the information salient to the students. Presenters explain stigma and discuss the myths about mental illness, as well as giving factual information about the prevalence, symptoms and causes of mental illness. They also provide written material about mental health services and resources avail-

A B S T R A C T

Reducing the stigma of mental illness, increasing knowledge about mental health and improving help-seeking for mental health problems are essential areas of change targeted by mental health promotion interventions. A school-based programme aimed specifically at these areas is the Mental Illness Education programme, where people who have experience of mental illness give an interactive presentation to high school class groups. This article reports an evaluation of the Mental Illness Education programme (MIE) as implemented in the Australian Capital Territory (ACT). Using a case control design, 457 high school students were tested by self-report questionnaire before and after participation in the MIE-ACT programme. The results showed that the programme had a strong impact on increasing knowledge and a moderate impact on reducing stigma, but a weak impact on changing help-seeking intentions. Overall, the evaluation of the programme was positive, although areas of continuing challenge are identified.

able in the community. Of primary importance, however, are the personal stories of the presenters, which are used to engage the students actively and to convey messages that destigmatise mental illness by showing that people with mental illness do recover and are ordinary people with a health condition that needs to be treated effectively.

The MIE-ACT programme has several clearly articulated aims. It aims to reduce the stigma of mental illness and improve attitudes toward people with mental illness, increase mental health literacy and encourage early and effective help-seeking behaviour for mental health problems (MIE-ACT, 1999). Such a clear expression of programme aims is essential to designing an effective evaluation.

Mental health literacy, stigma and help-seeking

Mental health literacy includes 'knowledge and beliefs about mental disorders which aid their recognition' (Jorm *et al*, 1997a). Jorm (2000) states that it comprises several components, including the ability to recognise specific disorders or different types of psychological distress, knowledge and beliefs about risk factors and causes, knowledge and beliefs about self-help interventions, knowledge and beliefs about professional help available, attitudes that facilitate recognition and appropriate help-seeking, and knowledge of how to seek mental health information.

Jorm and colleagues conducted a survey of the mental health literacy of a representative national sample of Australian adults and reported their results in a series of articles showing that the mental health literacy of the Australian public is poor (Jorm, 2000; Jorm *et al*, 2000; Jorm *et al*, 1997a, 1997b, 1997c, 1997d, 1997e). Many Australian adults cannot correctly recognise symptoms of depression or schizophrenia, and an alarming number do not recognise depression and schizophrenia as mental disorders. Similar results have also been found in the United Kingdom (Hall *et al*, 1993).

Inability to recognise mental disorders and understand psychiatric terms has implications for early recognition of mental disorders, help-seeking behaviour and treatment (Jorm *et al*, 1997a). It may have a stronger impact in adolescence, as it is during adolescence and early adulthood that most mental disorders first develop and when young people become increasingly responsible for their own health-related behaviours. Adolescents do not accurately recognise their mental status, and generally do not define symptoms of mental health problems as requiring help (Health, 2000b). If an individual is unable to recognise that they are experiencing symptoms of a mental disorder, or to recognise symptoms in others, they are unlikely to seek, or encourage others to seek, appropriate mental health care. Even if help is sought, misunderstanding of the meanings of mental health terms may cause problems of communication with health practitioners (Jorm, 2000).

Knowledge about the sources of help available and beliefs about the effectiveness of treatments for mental illness are also generally lacking for both adults and adolescents. It is important to note that the public's views about the helpfulness of treatments for schizophrenia and depression are not consistent with the available evidence or the views of professionals such as mental health nurses and psychiatrists (Caldwell & Jorm, 2000; Jorm *et al*, 1997a, 1997b).

Many adolescents try to deal with their mental health problems themselves, and even when they do seek help, it is usually from informal sources such as family and friends, only a very small proportion seeking help from professional or formal sources (Rickwood *et al*, in press; Boldero & Fallon, 1995; Amato & Bradshaw, 1985). The child and adolescent component of the National Survey of Mental Health and Wellbeing found that only 29% of Australian children and adolescents with a mental disorder had attended a service to receive help (Sawyer *et al*, 2000). Other studies have shown that girls and young women most often go to friends for help, while males turn to their parents (Hodgson *et al*, 1986; Offer *et al*, 1991) and adolescents seek help from those sources most convenient to them (Offer *et al*, 1991). Research has consistently found reluctance among adolescents to seek professional help (Offer *et al*, 1991), and that females seek help to a greater extent than males (Saunders *et al*, 1994; Boldero & Fallon, 1995).

There are many factors that contribute to young people's reluctance to seek help, but stigma is one of the most important (Rickwood *et al*, in press). In their national survey of Australian children and adolescents, Sawyer and colleagues (2000) found that adolescents reported that being worried about what others might think was a major barrier to their seeking help for an emotional or behavioural problem. Similarly, Deane and Todd (1996) found fear of social stigma to be a significant predictor of intentions to seek help.

Of particular concern is the finding that half the Australian adult population consider weakness of character as a cause of both schizophrenia and depression (Jorm *et al*, 1997b). Similar results have been found in the United States (Link *et al*, 1999). Jorm and colleagues argue that the term 'weakness of character' generally implies a negative evaluation of the person, and that such a causal attribution may lead to stigma and discourage help-seeking.

The contact hypothesis

The notion that prejudice may be reduced by equal-status contact between majority and minority groups in the pursuit of common goals was proposed by Gordon Allport (1954) in his book *The Nature of Prejudice*, and is known as the **contact hypothesis**. The MIE-ACT programme is based partly on the assumption that interpersonal contact between the presenters and the students will reduce stigma.

The contact hypothesis has received mixed support in the literature. Trute *et al* (1989) found that contact with people with mental illness resulted in less social distance in situations of social relations, but did not have an effect on social distance in situations of social responsibility. Sellick and Goodear (1985), in their study of 780 Australian adults living in rural areas, found that contact with people with mental illness did not have an effect on attitudes towards them.

However, a meta-analytic review of studies by Kolodzeij and Johnson (1996) that examined the effects of contact with people with mental illness on mental health employees and students concluded that contact with those who have a mental illness improves the acceptance of this group. Link and Cullen (1986) similarly found that contact with people with mental illness is associated with a decrease in an individual's level of fear of them, and that this association holds regardless of age, sex and education. They demonstrated that this contact does not need to have resulted from the individual's choice, nor does it have to be in the form of a close personal relationship. Matschinger and Angermeyer (1996) also found that people with more personal exposure to people with mental illness express less desire for social distance, regardless of whether the individual chose the contact (eg as friends) or whether the contact was involuntary (eg as colleagues or neighbours).

One explanation for the inconsistency of findings on the contact hypothesis may be the context in which the contact occurs. Amir (1969) concluded that contact with a minority group will reduce stigma most when the contact is between participants of equal status and is co-operative, and there is institutional support for the contact. Corrigan and Penn (1999) drew similar conclusions, specifically in relation to contact with people with mental illness.

Knowledge

The MIE-ACT programme also aims to reduce the stigma associated with mental illness by providing factual information that contradicts negative stereotypes and dispels myths surrounding mental illness. Several studies have examined the effects of education on stigma, showing that people who have a better understanding of mental illness are less likely to endorse stigma and discrimination (Brockington *et al*, 1993; Link & Cullen, 1986). Research has also shown that participation in brief courses on mental illness education leads to improved attitudes towards people with mental illness (Keane, 1991; Morrison *et al*, 1979). These programmes are effective for a wide variety of participants, including adolescents, community members and people with mental illness (Corrigan & Penn, 1999). Active forms of education that incorporate instruction along with discussion with peers and teachers and role-play activities lead to a greater reduction in stigma than formal lectures alone (Corrigan & Penn, 1999).

The present study

The present study aimed to investigate whether the MIE-ACT programme was effective in achieving its aims of increasing adolescents' mental health literacy, reducing stigma and increasing help-seeking. It was hypothesised that the programme would be effective for these outcomes, as it is based on an understanding of the conditions required to reduce stigma and increase knowledge. The MIE-ACT programme uses an active education approach: the presenters engage the students through discussion, role-plays and other interactive activities. Moreover, the conditions are conducive for the effect of the contact hypothesis to occur. The usually low status of the minority group (people with mental illness) is ameliorated because the presenters are adults and placed in a position of authority for the class of students – the position that a teacher, who has higher status than the students, normally occupies. The contact is co-operative, as the MIE-ACT presenters engage the students in discussion and role-plays and do not exert an authoritarian influence. The contact has institutional support from the school.

Method

Participants

There were 457 high school students who participated in the evaluation, 59% of whom were female. Their ages ranged from 14 to 18 years, with a mean age of 16 years (SD = 1.05).

All schools in the ACT implementing the MIE-ACT programme during May to August 2001 were invited to take part in the research. All schools agreed, providing a broadly representative sample of ACT schools, including

three private and four public schools in the ACT region. Another school, currently not implementing the MIE-ACT programme, was randomly selected from non-participating schools to provide a control group.

Approval to conduct the research was obtained from the University of Canberra Committee for Ethics in Human Research, the ACT Department of Education and Community Services, the Catholic Education Office and school principals. Informed consent was obtained from parents and the student participants.

Design and procedure

An effective evaluation design requires a pre-test and post-test for both an intervention and a control group (Whitley, 1996). Such a design was employed in the current context, with the addition of a Solomon four-group design (Braver & Braver, 1988), which enables testing for the presence of pre-test sensitisation. This can occur if the administration of the pre-test measures sensitises the participants to the intervention. It was possible in the present study that asking students about mental illness and their attitudes towards people with mental illness would prime and sensitise them to the MIE-ACT programme. Consequently, about half the classes that participated in the MIE-ACT programme were randomly assigned to a condition where they did not have a pre-test and half to a condition where they did receive a pre-test. The overall design and the number of participants in each experimental group are presented in ***Table 1***, below. The control groups were obtained from a non-participating co-educational high school (group 2) and students who had been absent at other schools during the MIE-ACT intervention (group 4). Participants completed an anonymous, self-report questionnaire at both pre-test and post-test. Pre-test and post-test questionnaires were linked by a participant-generated identification code. The questionnaires measured stigma, mental health knowledge and help-seeking. They were administered by class teachers during normal class times, and took about 15 minutes to complete. Students in Group 1 completed the pre-test in the week before the MIE-ACT presentation, and students in Groups 1 and 3 completed the post-test questionnaire immediately after the MIE-ACT presentation. Students in Group 2 (the control group) completed the post-test questionnaire two weeks after being administered the pre-test questionnaire. Students in Group 4 completed the post-test only during class time.

TABLE 1 ***Research Design***

Research group	N	Pre-test questionnaire	MIE-ACT intervention	Post-test Questionnaire
1	207	X	X	X
2	38	X		X
3	102		X	X
4	110			X

Measures

Identical self-report measures were obtained via questionnaire at pre and post-test.

Stigma was measured using a procedure involving presentation of two vignettes describing either a male or female who met the DSM-IV criteria for schizophrenia or for depression (Martin *et al*, 2000). After presentation of the vignettes, participants were asked four questions about their attitudes towards the person described in the vignette and four social distance questions (adapted from Trute *et al* 1989 to be congruent with the current vignettes). To control for potential order effects, the presentation of the vignettes was counterbalanced by gender and type of mental illness of the person described in the vignette. A total stigma score was obtained by computing the means of these items, which yielded a scale ranging from 1 to 4, higher scores indicating more stigma. Internal consistency of the stigma scale at both pre- and post-tests and for both the schizophrenia and depression vignettes was excellent, Cronbach alpha coefficients ranging from .82 to .90.

Knowledge of mental health and mental illness was measured by three multiple-choice questions and eight open-ended questions that tested whether students could recall the factual information provided during the programme. These questions were based on the specific outcomes the MIE-ACT programme tries to achieve: to increase students' knowledge about the prevalence of mental illness, the main types of mental illness, common symptoms of mental illness, factors that may lead to a person's developing a mental illness, the benefits of seeking help early and sources of help for mental illness. Responses to these items were scored as either correct or incorrect, and summed over all the knowledge questions to yield a total percentage of correct answers.

Help-seeking intentions were measured by the General Intentions to Seek Help Questionnaire (Wilson *et al*, under review). This is an 18-item questionnaire examining intentions to seek help from a variety of sources. It has been widely used in a range of contexts and shown to be a valid and reliable measure of help-seeking intentions, particularly for school students (Rickwood *et al*, in press; Wilson *et al*, under review). Of interest to the current study were intentions to seek informal help from friends and

family, help from school-based sources such as teachers and school counsellors, and help from mental heath professionals such as a psychologist or general practitioner. Help-seeking intention scales were computed for informal help, school-based help and professional help; scores ranged from 1 to 7, a higher score indicating stronger help-seeking intentions from that source. All scales showed good internal consistency across the pre- and post-tests, Cronbach alpha coefficients ranging from .75 to .90.

Results

The data were first examined to ensure that pre-test sensitisation had not affected outcomes. A series of 2 (pre-test/no pre-test) x 2 (control/intervention) analyses of variance were undertaken for each of the post-test measures. A pre-test sensitisation effect would be evident if the interaction term for these analyses was significant. The interaction term was not significant for any of the measures: stigma, $F_{(1,456)}$=.239, p =.625; total knowledge, $F_{(1,456)}$=2.267, p=.133; or the help-seeking intention measures, Wilks Λ =.980, $F_{(4,422)}$ = 2.17, p = .071).

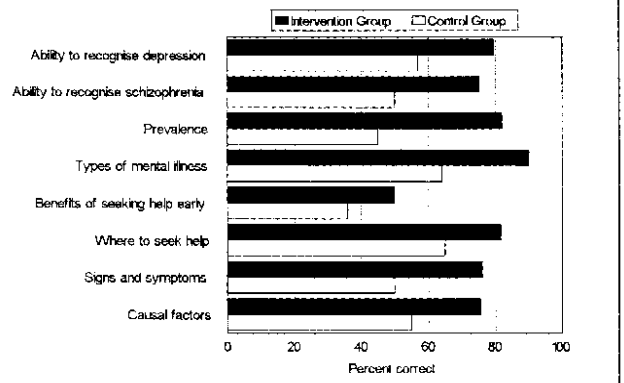
It was also necessary to establish that the control and intervention groups were equivalent at pre-test and that pre-existing group differences could not explain group differences at post-test. A series of independent t-tests comparing the control and intervention groups at pre-test on stigma, total knowledge and the help-seeking intention measures revealed that there was a significant difference between the groups at pre-test only on the total knowledge measure (p<.05). The intervention group had significantly higher knowledge scores at pre-test than the control group, $t_{(243)}$ = 5.123, p = .000. The size of this effect was a moderate 10%, mean pre-test scores being 59.39 and 37.07 for the intervention and control groups, respectively.

To evaluate the impact of the MIE-ACT programme, post-test scores for the intervention and control groups were compared for each of the measures. This was appropriate, as there was no pre-test sensitisation effect evident, and the intervention and control groups (that undertook the pre-test) were shown to be equivalent at pre-test for all the measures except the total knowledge measure. For the knowledge measure, covariance procedures were used to partial out the pre-test differences in the post-test scores. Because gender differences were also of interest, a series of 2 (intervention/control) x 2(male/female) analyses of variance (ANOVA) were used to test for group differences.

For the stigma measure, the ANOVA revealed a significant main effect for the intervention, $F_{(1,453)}$ = 31.667, p = .000, as well as a significant main effect for gender, $F_{(1,453)}$ =55.635, p =.000, but no gender by intervention interaction, $F_{(1,453)}$=.312, p= .577.

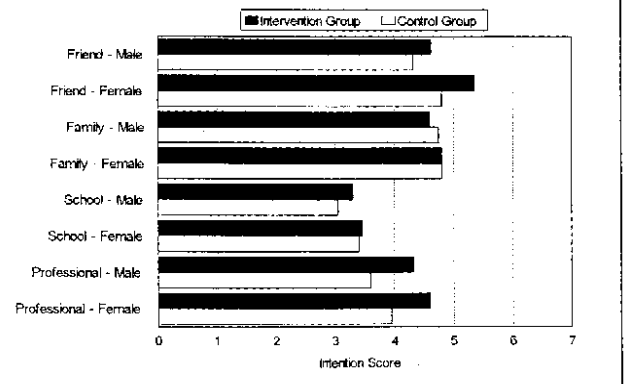
Figure 1, below, shows that participants in the intervention group had lower mean stigma scores at post-test than participants in the control group, and that difference showed a moderate effect size as indicated by a partial eta squared of 6.7%. Overall, girls had lower mean stigma scores than boys, with an effect size of 11%.

FIGURE 1 ***Stigma Scores by Group and Gender***



Similarly, for the total knowledge measure, the ANCOVA revealed a significant main effect for the intervention, $F_{(1,450)}$ = 96.187, p = .000, as well as a significant main effect for gender, $F_{(1,450)}$ = 44.342, p =.000, but no gender by intervention interaction, $F_{(1,450)}$ = .091, p = .763. ***Figure 2***, below, reveals that participants in the intervention group had greater mental health knowledge at post-test than participants in the control group and that this effect was quite strong, with an effect size of 17.6% as indicated by partial eta squared. Girls also had greater knowledge overall than

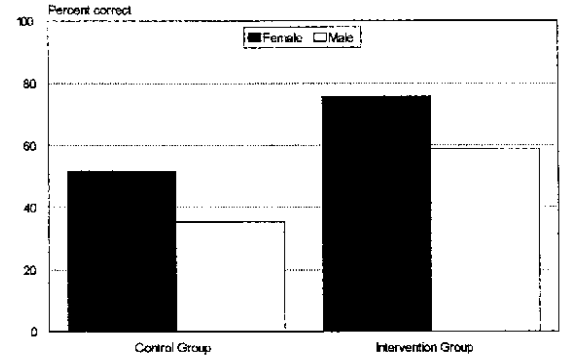
FIGURE 2 ***Total Knowledge Scores by Group and Gender***



boys and this was a moderate effect of nine per cent.

To determine whether greater knowledge for the intervention group was evident for each of the different knowledge questions, a series of chi-square analyses were conducted. ***Figure 3***, below, graphs the differences in the percentage of correct responses between students who participated in the MIE-ACT programme and those who did not. The chi-square analyses revealed that the intervention group had significantly greater knowledge than the control group on each of the knowledge questions (all $p<.001$) and that the effect sizes were all moderate ($\Phi>.25$).

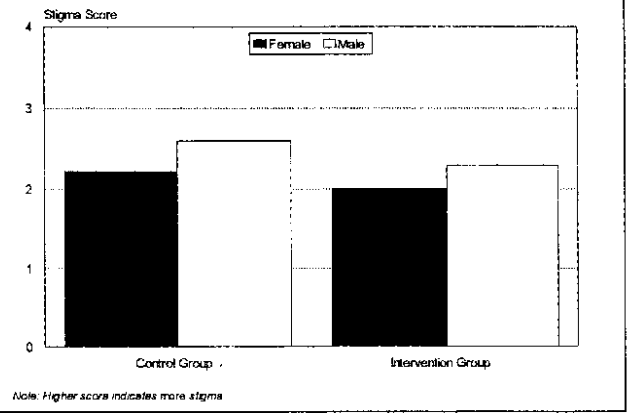
FIGURE 3 *Percentage of Correct Answers to Knowledge Questions by Intervention Group*



For the help-seeking intentions measures, a multivariate analysis of variance was undertaken, the dependent variables being the post-test scores of the four help-seeking intentions scales: friends, family, school and professionals. There was no significant effect of the interaction of gender and the intervention, Wilks' $\Lambda = .997$, $F_{(4,417)} = .363$, $p = .835$, but there was a significant main effect revealed for the effect of the intervention, Wilks' $\Lambda = .942$, $F_{(4,417)} = 6.428$, $p = .000$. At the univariate level, however, this effect was evident mainly for intentions to seek help from professionals, $F_{(1,420)} = 13.703$, $p = .000$, and somewhat for intentions to seek help from friends, $F_{(1,420)} = 3.997$, $p = .046$, but not for intentions to seek help from family, $F_{(1,420)} = .245$, $p = .621$, or school sources, $F_{(1,420)} = .708$, $p = .401$. ***Figure 4***, below, shows that, while there was a generally positive effect of the intervention on help-seeking intentions, this effect was only weakly evident for professionals, with an effect size as indicated by partial eta squared of 3.2%, and barely present for intentions to seek help from friends with an effect size of 0.9%.

The MANOVA also revealed a significant gender effect for help-seeking intentions, Wilks' $L = .967$, $F_{(4,417)} = 3.591$, $p = .007$. This effect was only evident at the univariate

FIGURE 4 *Help-Seeking Intentions by Source and Gender*



level for intentions to seek help from friends, $F_{(1,420)} = 11.457$, $p = .001$, and was not evident for intentions to seek help from family, $F_{(1,420)} = 1.005$, $p = .317$, school sources, $F_{(1,420)} = 3.089$, $p = .080$ or professionals, $F_{(1,420)} = 5.624$, $p = .171$. ***Figure 4*** shows that girls were more likely than boys to intend to seek help from their friends; this effect was weak, however, with an effect size as indicated by partial eta squared of 2.7%.

Finally, analyses were undertaken to determine whether reductions in stigma were due to knowledge or to other factors, such as contact with the MIE-ACT presenters. Knowledge and stigma were weakly correlated at pre-test, $r_{(456)} = -0.17$, $p = .008$, but more strongly correlated at post-test, $r_{(456)} = -0.38$, $p<.008$. An analysis of covariance, controlling for students' knowledge, was carried out to determine whether the effect of the intervention on the dependent variable of stigma at post-test remained when knowledge was partialled out. The analysis revealed a significant effect of the intervention even after the effect of knowledge was removed, $F_{(1,449)} = 13.254$, $p < .001$. Participating in the MIE-ACT programme was therefore associated with reduced stigma, even after level of mental health knowledge had been controlled. The reduced stigma was due to factors other than just knowledge, possibly personal contact with the MIE-ACT presenters.

Discussion

This evaluation aimed to determine whether the Mental Illness Education school-based programme was effective at reducing the stigma of mental illness among young people and increasing their mental health knowledge and intentions to seek help. The results revealed that the programme was effective on each of these outcome measures, showing a strong impact on knowledge, a moderate impact on stig-

ma and a weak impact on help-seeking intentions. The MIE-ACT programme was equally effective for male and female adolescents, although the girls had greater knowledge and less stigma than boys, and were more likely to intend to seek help from their friends, both before and after participating in the programme.

The programme had the greatest effect on mental health knowledge. Knowledge was quite poor before the programme and for students in the control group, but increased significantly for programme participants. After the programme, more than three quarters of the participants could recognise a person described in a vignette as having depression or schizophrenia. This compared with about half the control group. In a study of Australian adults, Jorm *et al* (1997a) found that only 39% and 27% could identify the mental disorder described in depression and schizophrenia vignettes, respectively. Knowledge increased for most of the indicators of mental health literacy, but was lowest for understanding the benefits of seeking help early. This suggests that young people are still not convinced, even after the MIE-ACT programme, of the benefits of early treatment for mental illness.

The programme also reduced the stigma of programme participants in their attitudes to and desired social distance from people with depression and schizophrenia. It could not be determined, however, by what mechanism this change was achieved, although it was shown that this reduction was not due solely to an increase in mental health knowledge. It was hypothesised that contact with people with mental illness would reduce stigma, in that the personalised presentations were expected to have elicited empathy towards the MIE-ACT presenters as well as 'normalised' people with mental illness. Other research has shown that empathy for a member of a stigmatised group can improve attitudes towards the group as a whole (Batson *et al*, 1997). The outcomes of the current research are consistent with such an explanation, but the design precludes a firm conclusion, and further research is required to reveal the exact mechanisms by which the reduction in stigma takes place.

Qualitative comments revealed that many students were deeply touched by the personal stories of the presenters and that this was a powerful medium. The personal stories made the impact of mental illness tangible and encouraged the realisation that people with mental illness were just 'ordinary people with extraordinary stories'. Many students commented, however, that they would like to hear more stories of young people with mental illness, since the majority of MIE-ACT presenters are over 30 years of age. Most of the MIE-ACT presenters are female, and boys commented that they would have liked a male presenter.

The MIE-ACT programme was least successful in increasing adolescents' intentions to seek help. Only a very weak impact on help-seeking intentions was evident, and this was mostly for professional sources, from which adolescents rarely seek help (Rickwood & Braithwaite, 1994). Qualitative information revealed that the students felt that the programme needed a more concrete focus on the specific help-seeking actions that students could take in response to different types of problem. Students were most concerned about being able to help a friend in need to access appropriate mental health help, and this focus on aiding a friend in need seems to be an effective pathway for conveying help-seeking information (Rickwood *et al*, in press).

The study showed that attitudes and knowledge changed more than behaviour. It is well established that behaviour change is more difficult to achieve than attitudinal change, and that changing attitudes does not necessarily translate into behaviour change. In a meta-analysis, Krauss (1995) found that the mean association between attitudes and future behaviour was approximately .39, confirming that changing attitudes does not ensure a change in behaviour. Even though the MIE-ACT programme participants reported more positive attitudes towards people with mental illness, this did not translate into changes in behavioural intentions regarding their own mental health actions. However, it should be noted that the attitude measure of stigma and the help-seeking intentions measures are not matched in terms of the object – for the stigma measure the object was other people with mental illness, while the object for the intentions measure was the participants' own mental health-related behaviour. This would attenuate the relationship between attitudes and behaviour.

An important limitation of the study was the non-random assignment of participants to groups. This was the reason for differences in knowledge between the groups at pre-test. The control group, consisting of classes at a school not participating in the MIE-ACT programme, had significantly less mental health knowledge at pre-test than the participants in the intervention group at pre-test. A possible explanation for this is that the intervention groups may have been primed for the MIE-ACT presentation by prior discussion of mental health issues, and this may have prematurely increased their knowledge. Such confounds are examples of the constraints that occur when conducting real-world evaluations of programmes where randomised controlled trials cannot be implemented.

A further limitation was the short-term nature of the

evaluation. Although the study showed that it is possible to achieve a positive change in adolescents' knowledge, stigma and intentions to seek help in the short term, it does not indicate how lasting these changes will be. The post-test measures were made immediately following the intervention, when impact may be at a peak. It is unclear whether the intervention lays the foundations for subsequent and ongoing positive change or whether the effects dissipate over time. A follow-up study needs to be conducted after a longer period of time has elapsed to test whether the effects of the MIE-ACT programme are sustained.

Despite the limitations, the results clearly provide support for the continued and expanded implementation of the MIE-ACT programme in ACT schools. The results also suggest ways to improve the impact of the programme. For example, areas where knowledge was still low following the programme, such as the benefits of seeking help early, need to be addressed. Ways to have a greater impact on help-seeking intentions and behaviour also need to be developed. It is evident that more effort needs to target boys who, although they are equally affected by the programme, still have less knowledge, more stigma and lower help-seeking intentions than girls, because they have a greater need for change. Having presenters who are a closer match with the demographics of the class group in age and gender may also increase the impact of the programme. The varying impact of individual presenters is an area for future study as, although this study found clear effects when averaged over all the presentations, some presenters are likely to be more effective than others and the specific elements that make a presentation effective need to be ascertained.

Overall, however, it is evident that school-based programmes like MIE-ACT have the potential to increase greatly mental health literacy, and thereby have a positive impact on the public's understanding of mental illness. They also have the potential to contribute to the well-being of people with mental illness by promoting more positive attitudes and less discriminatory behaviour towards them. This study demonstrated that, overall, the MIE-ACT programme achieved most of its stated aims, which is summed up in the following statement made by one of the participants.

> *'I didn't know depression and anorexia were mental illnesses. Since the presentation I realised I have depression and am currently seeing a counsellor with my mum. Mental illness is a lot more common than I thought.'*

Address for correspondence

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